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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,205	09/24/2001	Goro Tamai	GP-300567	6870

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EXAMINER

AVERY, BRIDGET D

ART UNIT	PAPER NUMBER
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3618

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/961,205

Applicant(s)

TAMAI ET AL.

Examiner

Bridget Avery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: _____

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DETAILED ACTION

1. The Information Disclosure Statement filed by applicant on September 24, 2001 is acknowledged.
2. The preliminary amendment filed by applicant on December 21, 2002 is acknowledged and has been entered.
3. An action on the merits of claims 25-30 follows.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 25-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Long, III et al. (US Patent 6,367,570).

Long, III et al. teaches a propulsion system controller (402) for use in a hybrid vehicle including: a motor/generator (200) for providing starting force to an internal combustion engine (150) in a first mode of operation and for generating an electrical charge in a second mode of operation (as described in column 10, lines 25-30); a first operating system, the first operating system varying the prime pulse to an internal

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combustion engine and the starting force applied to the internal combustion engine (150) by the motor/generator (200) (as described in column 9, lines 31-44), the operating system varying the starting force and the prime pulse according to engine coolant temperature and battery state-of-charge (see column 9, lines 18-26); a second operating system, the second operating system varying the state of operation of the motor/generator (200) during a starting sequence of the internal combustion engine (150), the first operating system and the second operating system instructing the motor/generator (200) to operate in between the first and the second modes of operation (between the generator and the neutral mode as described in column 10, lines 33-38); a third operating system, the third operating system varying a degree of electric power being used to drive the vehicle, the degree of electric power corresponding to sensed vehicle operating conditions (see column 10, lines 39-55); a means (456, 458) for sensing the state-of-charge of an electric storage medium (400), the means for sensing state-of-charge of the electric storage medium (400) being operated by the first operating system; and a means (see column 9, line 20) for sensing the temperature of an engine coolant of an internal combustion engine (150), the means for sensing the temperature of the engine coolant being operated by the first operating system. The method of varying the state of propulsion and the method of controlling a hybrid powertrain, which includes: determining if an engine starting command has been requested; sensing the state-of-charge of an electric storage medium; sensing the temperature of an engine coolant of an internal combustion engine; sensing the temperature of the electric storage medium; determining if a fault condition is present;

sensing the operating condition of a motor/generator; controlling the motor/generator operation based upon the state-of-charge and the temperature of the internal combustion engine; varying the starting speed of the motor/generator in the first mode in response to the state of charge of the electric storage medium; and varying a prime pulse to the internal combustion engine in response to the state of charge of the electric storage medium, is also taught by Long, III et al. See column 11, lines 21-65.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Long, III et al. ('570) in view of Yano et al. (US Patent 5,862,497).

Long, III et al. teaches the features described above.

Long, III et al. lacks the teaching of the step of controlling the transmission based upon the operations of the motor/generator.

Yano et al. teaches a control unit (16) for controlling a transmission (4).

Based on the teachings of Yano et al., it would have been obvious to one having ordinary skill in the art, at the time the invention was made to include the step of controlling the transmission for optimum vehicle performance.

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Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bluemel et al. shows electric drive arrangements for internal combustion engines in motor vehicles.

Kapsokavathis et al. shows a method and system for regulating a charge voltage delivered to a battery.

Bolenz et al. shows a starting and driving unit for internal combustion engine of motor vehicle.

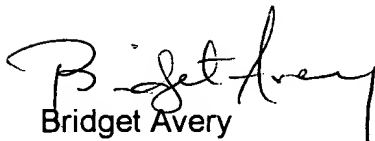
Aoyama et al. shows a hybrid vehicle employing parallel hybrid system, using both internal combustion engine and electric motor for propulsion.

Kitada shows an electric hybrid vehicle.

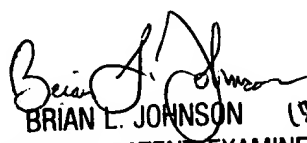
Yoshida shows an operating method for a hybrid vehicle.

Abe et al. shows a diagnosis system for a motor vehicle.

7. Any inquiry concerning this communication should be directed to Bridget Avery at telephone number 703-308-2086.


Bridget Avery

November 25, 2002


BRIAN L. JOHNSON 11/2/02
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600